

CLAIMS

What is claimed is:

1. A pump for anti-lock brake systems, comprising:

5 a piston installed in a bore of a modulator block so as to rectilinearly reciprocate in the bore by an eccentric rotation of an eccentric shaft of a drive motor;

 a plug mounted to the bore to be opposite to the piston;

 a return spring placed between the piston and the plug to elastically bias the piston in a predetermined direction relative to the plug;

10 an outlet path defined between an inner circumferential surface of the bore and an outer circumferential surface of the plug; and

 an outlet check valve installed in the outlet path, the outlet check valve being elastically deformed to discharge brake oil during an oil-discharging mode, and elastically restoring an original shape thereof to prevent a reverse flow of the discharged brake oil
15 during an oil-drawing mode.

2. The pump according to claim 1, wherein the outlet check valve comprises a ring-shaped elastic body, with an annular groove formed along a central line of an end surface of the ring-shaped elastic body, so that the outlet check valve is elastically deformed and elastically restores the original shape thereof, according to a pressure of
20 the brake oil acting on the outlet check valve.

3. The pump according to claim 1, wherein the plug comprises:

 an inlet port to draw the brake oil into the pump;

25 an inlet path to guide the brake oil from the inlet port;

a closing body installed in an enlarged diameter part of the inlet path to open or close the inlet path;

an inlet valve seat provided on a predetermined intermediate portion of the inlet path to be in contact with the closing body, thus opening or closing the inlet path in
5 conjunction with the closing body;

a support spring to elastically bias the closing body in a predetermined direction;
and

a spring retainer to maintain both the closing body and the support spring within the enlarged diameter part of the inlet path.

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4. The pump according to claim 1, further comprising:

a sealing member placed around the outer circumferential surface of the plug, thus preventing a leakage of the brake oil through a junction between the inner circumferential surface of the bore and the outer circumferential surface of the plug.